Minutes CDC ITA Working Group
3 November 1999

Attendees 11/3/99

Dorothy Holland	Marile Prosser	Roy Ing	Bob Schwartz
Tom Mraz	Brenda White	Bill Yasnoff	Kathy Kristar
Jim Miller	Susan Wilkin	Helen Regerny	Gil Haugh
Jim Syms	Susan Katz	Jose Becerra	Rodney Murray
Joe Hungate	Marty Baum	Jaspar Sagoo	

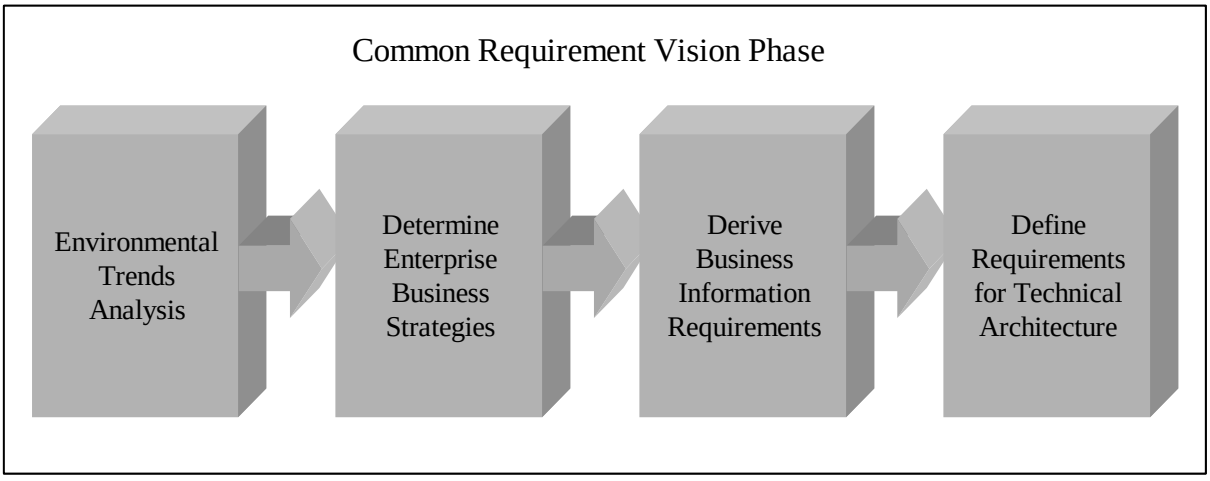
Agenda

1. Confirm Co-chair
2. Develop basis for Common Requirements Vision
   - Orientation
   - What are our expectations for the ITA?
   - Characterize Environment Trends Influencing our Future
   - Characterize Today's Business Environment
   - Identify Key Driving Business Strategies for Transition
3. Next Steps

1. Marty Baum, NCHS, was confirmed as Co-chair of the ITAWG

2. Common Requirements Vision

The primary purpose for the 3 November 1999 ITAWG was to identify the environmental trends and key driving business strategies of the CDC. The trends and strategies can then be used to derive the business information requirements which, in turn, will drive the development of requirements for the CDC Information Technical Architecture.



The following information was extracted during the "big paper" exercise to assist with the Common Requirements Vision development:

What are our expectations for the ITA?
Success looks like...

- Better application of IT staff (support the mission area)
- Every scientist, epidemiologist, and statistician has the information in the format they need
- Integration of epidemiological surveillance systems
- CDC accomplish its public health mission effectively and efficiently
- A personnel classification system theat can support the ITA implementation
- Timely public health information easily accessible to CDC , partners, and the public
- Purchasing strategy for IT that ensures resources are available based on need (management supporting our scientists, eliminate disparity)
- Seamless electronic information exchange with state and local health departments
- Single online, up-to-date database of metadata available to CDC and a software re-use library
- Elimination of many of our silos - real collaboration between organizations (data across organizations within CDC, better view of science and public health implications
- All of CDC working together as one (understanding importance of each other's work, better/sounder resource decisions, still supporting the mission of each center)
- An IT architecture that can support the elimination of silos (supports regrouping of CDC, one part to help CDC push forward)
- Help us identify information resources in house and help us share those resources
- An architecture that provides for the merger of financial and administrative and program data (available where needed)
- Personnel model that is harmonious with the way IT is managed
- Consistent results with IT planning

What are our expectations for the ITA?
Roadblocks...

- Deeply ingrained belief/culture in hierarchical personnel model
- Privacy and confidentiality issues
- Turf
- Geographic separation (NIOSH employees, etc. not CDC employees, national separation, separation within the Atlanta area)
- Congressional line item funding for each C/I/O (how to balance with benefits)

- Everyone is comfortable with what they are doing (no compelling reason to change)
- CDC culture (lack of compelling commercial-like drivers, e.g. survival; negative drivers, e.g. punished for being efficient
- Uncomfortable with culture change (performance measures, business case, etc; OMB oversight and accountability; competing for resources (business plan to support mission)
- Belief that knowledge is power(hard for people to let go of what the are holding)
- Buy-in of higher management and of scientists, epidemiologist, statisticians
- Real difference between the budgets of the C/I/Os
- Information is not managed/regarded/treated as a strategic asset (treated as a cost)
- Management has a weak or non-existent understanding of informatics (including HHS)
- If Public Health performs perfectly, nothing happens (no crisis to drive anything)
- Different IT management priorities at each C/I/O (some understand IT better than others)
- ITA is not a program priority (because of lack of IT knowledge amongst managers - not a prerequisite)
- Limited career path for IT professionals (low glass ceiling)
- Not enough Chief Information Officers who understand both how CDC conducts Public Health business and how to leverage IT to support that business
- Can crush IT professional's morale (has happened in the past)

Today's Environment

Social:
Public health information provider
Prevention agenda
Press (what sells?)
Terrorism
Lack of understanding of what CDC does

CDC Organization:
Limited informatics management capacity
Fiefdoms
Lack of understanding of what other parts of CDC do
Limited if any incentives for cooperation
Scientific partners (we want to publish first, data withheld)

Political:
Fear (money to do what's hot)
Patronage (disease fads)

Internal territorial C/I/Os

Budget:
No budget for 4-6 months (non-planning environment)

Customer Expectations:
Accurate Data
Up-to-date (timely, current)
Rapid access to their own data
No multiple data entry
Magical perception of integration
Easily accessible (free)
Collaborative systems needs leadership from top
Provide maximum IT flexibility at the lowest level

Technical:
Forums not used, people not aware
Highly distributed
Long lead time to implement innovation (late adopters)
E-mail is overused as a collaborative mechanism

Environmental Trends

Social:
Electronic government is expected (plentiful, easy to get to)
Global barriers to data interchange disappear
Heightened need for security
Increased worry about Bioterrorism
Increased focus on prevention

CDC Organization:
Scarcity of human resource capability
CDC as an enterprise (silo blending)
Increasing need for competency (public health)

Political:
Government ability to control access to information evaporating
Increased accountability

Budget:
Decreasing hardware and communications costs
Increasing people costs
Budgets will flatten out or decrease
Outsourcing justifies core mission is government

Customer Expectations:

Automated data entry
Customers may have data entry of their own
Specialty portals
Use of multimedia in health education

Technical:
Source data becomes electronic
Increase in specialists (as opposed to generalists)
Knowledge management
Moore's law prevails
Use of public key infrastructure
More outsourcing of IT services
Use of virtual private networks

Business Strategies

- General scientific research in public health
- Ongoing collection of surveillance data
- Develop new lab methods and develop QA for outside labs
- Provide assistance to state and local for disease outbreaks
- Provide funding to state and local health departments
- Improve the IT infrastructure at the state and local level
- Utilize the Internet as the primary information dissemination mechanism (one of many)
- Private/public foundation for research(money from private sources, fund projects not supported by congress)
- Provide information and prevention on a global level(prevent disease before it gets here)
- Ongoing collection and dissemination of health data
- Prevention through immunization
- Health education
- Provide emergency response and coordination
- Provide distance learning to public health work force
- Standardization of data and systems
- Consolidate and improve physical facilities
- Directly engaging congress
- Leverage resources through partnership
- Move to common ERP for internal resources

- Increase partnering cooperation with other agencies (Environmental, Law Enforcement, etc.)

Desired:
- Use of existing data from other parts of government
- Guidance developed through ITA

Parked Issues

A. Standard configurations
B. Wide disparity in IT equipment
C. Personnel model to support ITA
D. GAO audit/external review
E. Wasting IT money
F. Program Involvement

3. Next Steps

HRMO representation to be added to group. (Vicki Johnson, Christopher Stallard)
Subsequent meeting to develop Business Information Requirements.

APPENDIX

Becerra, Jose
From: Becerra, Jose
Sent: Wednesday, November 03, 1999 2:58 PM
To: Hungate, Joseph I
Cc: OPS/ITAWG
Subject: ITA Working Group Meeting today- Request to make full NAPA's Task 3 Report available to members

Joe:

It was a good meeting today. I think that NAPA's Task 3 Report Review of IT Trends, Architectures, Organizational Implications and Human Resources Issues (Contract #200-98-0430 May 21, 1999) is a most important document to share with our ITA Working Group as we discuss IT trends. I understand that tasks 4,5, and 6 may still be in draft form, but the 5-21-99 Task 3 Report that I've seen seems to contain very relevant ideas to our brainstorming session today. **Would you be able to make the full report available to the WG members?**

I'm including excerpts that I've OCRd from the hard copy to share with the rest of the WG. The text in bold I found specifically pertinent to our discussions today.

Jose Becerra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REVIEW OF THE *CDC/ATSDR* ENVIRONMENT

This section briefly revisits the CDC/ATSDR organization, IT and HR environments, and observations gathered by the Academy Team during Task I of this project, as a basis for further analysis and comment on the IT workforce and governance context. The available portions of the draft Information Technology architecture (ITA) have been reviewed for a macro view of the technology environment, and interim comments and recommendations will be provided as relevant in this report.

A. ORGANIZATIONAL STRUCTURE

CDC/ATSDR as an agency has the following four mission priorities:

Strengthen Science for Public Health Action
Collaborate with Health Care Partners for Prevention
Promote Healthy Living at Every Stage of Life
Work with Partners to Improve Global Health

The proposed Health Alert Network exemplifies the wide scope of CDC/ATSDR's information network. It will link CDC, state and local health departments, public health laboratories, public safety networks, local hospitals and doctors' offices, and other public and private organizations; and provide unprecedented access to health information, expertise, and scientific knowledge. The program will also promote IT literacy, provide public

health skills training (including response to terrorist acts), provide electronic access to databases, and enable electronic communications with colleagues.

The C/I/Os are the major business (mission) units, brought into a functionally federated environment where many still have separate Congressional and partner constituencies. Major funding is geared toward the health programs. Most of the new health program funding requests in the FY2000 budget require additional IT support for information dissemination, surveillance, antiterrorism communications, and research data. However, as occurs in industry, most of the increased funding will go into business units rather than the traditional, centralized, IS budget.

IT functions are performed by both the Information Resources Management Office (IRMO) and C/I/O IT personnel. IRMO reports to the Director of Administration and appears to function in the agency Chief Information Officer role. C/I/O IT personnel report to Center, Institute, or Office management.

Some C/I/Os have further organizational subdivisions, significant for this report to the extent that IT centralization versus decentralization concerns reach down to that level, and their IT managers have a better appreciation of the need for an IRMO type of role that coordinates policy, architecture, and standards.

Human resources support for the IT occupations is provided at CDC/ATSDR by the Human Resources Management Office (HRMO). This office also reports to the Director of Administration. A recent change to the method for providing human resources support to C/I/Os includes having HRMO's servicing specialists working onsite. This change seems to be producing affirmative results.

B. ORGANIZATIONAL INTERACTIONS AND ARCHITECTURAL DEVELOPMENTS

There are really two different IT environments at CDC/ATSDR, each with its own set of IT requirements. IRMO is a staff element with "corporate" and "administrative systems" responsibilities. The C/I/Os each have organic IT workforce and contractor support. The public health mission resides in the C/I/Os, which have significant IT roles and the financial resources to perform them. IT dollars included in major health program funding are controlled by the C/I/Os. IRMO staff performs four types of missions - policy coordination, infrastructure, administrative applications, and data center operations. Business applications and C/I/O network operations are performed by the C/I/Os. **A formal govemance model does not exist to manage the division of IT responsibilities between the IRMO and the C/I/Os, but real policy and decisions appear to develop from a cooperative and consensual model. There are signs of decentralization of former IS functions, and some recentralization of corporate and intemetworking functions under IRMO. In major ways the C/I/Os build and support their own business applications and run their own networks, and have to satisfy their own national and international external customers.** Increasing data collection requirements and the corresponding surveillance burden have prompted public demands for common and consistent data between and among the C/I/Os. The success of the Internet has also led to increased expectations for current and voluminous health information to be available from the C/I/Os and CDC/ATSDR as a whole.

An ambitious **information technical architecture (ITA) project** sponsored by IRMO has been in the works for some time, but has not appeared to be a top priority, understandably so in the face of the impending Year 2000 (Y2K) changeover. The ITA approach as outlined in the draft available to the Academy Team is consistent with the prevailing best practices for developing architecture, and the efforts by the Federal CIO Council to develop a uniform framework for government IT architectures. But as with the Federal framework, **business strategies and business priorities have not been articulated to steer the architectural work, and some of the work may lead to exhaustive documentation of existing practices rather than innovative ways to break out of old business habits (including in IT itself) through smart applications of technology.** Two

working groups, the IRM Coordinators Group and the Health Information Surveillance Systems Board (HISSB), meet periodically. They appear to function with at least informal (but real) authority to resolve technical and management issues. The IRM Coordinators group appears to have lagged as a governance group, but continues to function as a technical interface working group. The HISSB has begun to seriously address IT integration problems of systems that have a public information interface.

C. HR ISSUES

1. Classification Review Fallout.

As a direct consequence of last year's classification review, some high grades have shifted to IRMO, and IT staff in the C/I/Os have lost stature and pay, if not immediately then at least by the reduction of internal advancement opportunities. **In an academic, intellectually-oriented environment like CDC/ATSDR's, where the cultural hierarchy is largely built on degrees, professional standing/peer recognition, and functional distance from the core public health mission of the agency, the classification review represented a repudiation of IT's growing importance and interconnectedness to the substance of what CDC/ATSDR does. It unfortunately reinforced the outdated notion that all IT workers in the 334 series are administrative support types, and opened the door to further erosion of the IT role and function in favor of Informatics practitioners, and the associated heightened risk that critical IT design and resource decisions may be made in the future absent the involvement of IT professionals with in-depth expertise working in partnership with their public health counterparts to ensure robust solutions.**

While reassignment actions avoided loss of pay for incumbents of downgraded jobs, the functions performed by these positions and the organizations that owned them were nevertheless significantly affected. The review locked in place a consistent but conservative and arguably restrictive grade level structure based on application of an outdated OPM position classification standard, which itself is premised on a hierarchical model of IT functionality and organization bearing little resemblance to the way CDC/ATSDR and other modem organizations presently operate. HRMO's ability to interpret and extend the criteria to better fit contemporary circumstances was no doubt limited by the involvement and/or oversight of departmental and OPM staff in the review process, as well as the lingering effects of past personnel management issues at CDC/ATSDR of concern to these organizations. **There is residual mutual antagonism between IT and HR over assigning blame and the perceived failure of either to fully appreciate the other's position, needs, or constraints. Most unfortunately, the review has only reinforced and even intensified the degree of disagreement over appropriate grade levels for IT work within the C/I/Os, highlighted by the significant difference in grade structure between the C/I/Os and IRMO, which even the latter believes does not do justice to the work now performed by professional IT staffs at the individual center level.**

Presently, some C/I/Os are so short of staff that the expert technician is also the de-facto manager, and government personnel and contract employees often do not have shared expertise or provide backup coverage. Some serious decisions need to be made about adequately resourcing the C/I/Os with management/supervisory level IT positions, while aggressively searching for more capable contractor support to perform the extremely technical and possible non-core government functions. This means that the ITA must include analysis and guidelines for what is amenable for outsourcing, across the board, and what level of government responsibility will be retained, again across C/I/Os.

2. "Agency-Level" Functional Role for C/I/Os.

Major health applications tend to be C/I/O specific and developed through close cooperation between health professionals and C/I/O IT professionals. **Both the structure and culture of CDC/ATSDR clearly reflect**

a cooperative federation of substantively independent health agencies, each having separate Congressional constituencies and separate program funding. Each C/I/O has a distinct customer and constituency base, and a distinctive public health mission, often based on separate, specific program legislation. A C/I/O's programs and systems will have national, in many cases global, reach and scope. This is why a hierarchical model showing the C/I/Os having IT functions subordinate to IRMO would be incorrect, and formalization of that view by HR in dealing with the IT workforce would predictably lead to disastrous degradation of IT support for major agency missions. A more appropriate functional model delineating roles and responsibilities would appear relatively flat, with each C/I/O recognized as having similar "agency-level" scope, due to their parallel but distinctive national/international missions and functional responsibilities. IRMO would be a horizontally resourced and managed organization providing common, integrated support (or possibly even some fee-based support) and reporting to the CEO. Some of these strategic relationships should be captured in the higher levels of the enterprise architecture, which would then provide additional support for constructing and implementing the new HR model.

The challenge to HR is to provide a supportive and equitable model to properly recognize and value the IT workforce of each organizational unit. In fairness, current regulations and criteria applicable to IT work have and will continue to make this a considerable challenge. Events over the past several years involving HRMO's relationships with OPM and department-level HR officials will only add to the difficulty of rectifying current inequities. Nevertheless, a hierarchical model which regards the C/I/Os as functionally subordinate to IRMO is clearly no longer appropriate, and the implications of preserving ," that perspective in HR terms are potentially serious. Accelerated degradation of IT , support for major agency missions is a distinct possibility, unless viable alternatives to the present state of affairs can be identified in the not too distant future.